

ROADS IN VIRGINIA.

Mr. D. O. Nourse Tells How They Might Be Improved.

Mr. D. O. Nourse, the agriculturist and farm superintendent of Virginia experiment station, has just published a bulletin relating to the roads of that state—"if," as he says, "the tracks over which we are obliged to travel may be dignified by the name of roads"—in which he makes a strong plea for placing the building and repair of earth roads in the hands of persons who understand how to do such work in accordance with correct principles. What is wanted is an engineer or overseer for each county, to be paid a regular salary, who would, if a man of honor, be jealous of his reputation, and good roads would be the result. Such an officer could, in a few years, by keeping a sufficient number of teams and employing men used to the work who would be becoming better workmen year by year, build up a department that would be a credit to the community. It is no wonder that roads are poor when contracts are let to persons who hardly know a good road from a bad one—for it is just as necessary to know how to build a highway as it is to build a railroad. A few fundamental principles in the building and maintenance of earth roads are given.

1. A common error is that of attempting to repair without first removing the cause of the trouble. Drainage must be first attended to, as it is simply impossible to make a road bed to stand if the drainage is bad. "We have seen on one of the most traveled roads the water run for half a mile in the wheel and horse tracks, when perhaps the taking out of a stump or one blast of rock would remove all obstructions and allow good gutters." Water must be kept out of the road at all hazards and this must first, last and always be by the conduits at each side.

2. Water never runs up hill. Often the gutters are sufficiently good in every respect except that the slope is in the wrong direction. The eye is not always a true evidence of slope of ground, as the topography of the land may be such that the fall is more apparent than real. Apply the test of the simple level.

3. A safe rule is to place bridges or culverts wherever there is a depression in the road; and unless the water may be conveyed to fields on each side, a culvert must be made in the lowest spot, carrying the water across the road.

4. Whenever a mud hole is formed in an earth road, it should never be filled with a lot of stones, as this is almost certain to make two mud holes instead of one. First remove the mud and water from the puddle, and then take earth as nearly of the same nature as the roadbed as possible and pound this into the hole firmly, so that wheels may pass over it at once without sinking into it. It should be filled somewhat higher than surrounding portions to allow for settling.

5. Give the road bed the proper slope. Never allow it to be too flat, or lower in the middle than at the sides. A section of road should, if cut transversely, present an arc in shape, sloping from the center to each side. This, of course, is to prevent water from standing on the surface.

6. Do not make roads too wide or too narrow. If too wide they become very expensive to keep in repair, and if too narrow the gutters become obstructed from wagons running into them. In general these rules apply with equal force to earth or rock roads, as, if a rock road is to be made, these principles must first be carried out. The idea may appear absurdly simple, but there are thousands of instances in which they are utterly disregarded in road-building and repairs, and hence are the more necessary.—American Agriculturist.

ABOUT BITTER MILK.

Usually Caused by Ill-Health and Poor Condition of the Blood.

Several readers have written complaining that the milk of their cows is bitter after standing a few hours or a single day and that the feed used is of the best, clean and wholesome. Some of the cows have been in but a few months others will be fresh within three months.

Cows that have been in but a few months, are properly fed, have pure water, free access to all the salt they wish and give milk that is bitter without being tainted by contact with outside surroundings, may be in ill-health which affects the condition of the blood.

The best remedy for this trouble if produced by the blood being out of condition is to give a pound of sulphate of soda (glauber salts) or of sulphate of magnesia (epsom salts), dissolved in warm water, by means of a common drenching horn or long-necked bottle; and after this has operated, a daily dose of one ounce of hyposulphite of soda may be given with good results, for two weeks.

This latter is readily taken, by most cows, when powdered and sprinkled over a mess of scalded bran or in other feed.—Western Rural.

This Cannot Be Disputed.

A good road is the main artery of traffic. A village whose approaches are accessible and well kept is bound to thrive. A poor road at once brands the country wherein it exists as retrogressive or bankrupt and not worth traversing.—Sidney Hackes, Melrose, New York City.



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The 5 cent piece is nearly as large as you get of other high grades for 10 cents

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"Have you observed," said a merchant to a customer, "the handsome advertisement I have on a fence between Phoenix and Mesa?" "No," replied the customer, "but if you will send the fence around to my house I will try to read the announcement. I read the papers and I haven't time to go around reading billboards." And the merchant scratched his head.

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